

SEQUENCE LISTING

<110> Dong, Zheng Xin

<120> Analogues of GLP-1

<130> 00537-186002

<140> US 09/857,636

<141> 2001-06-07

<150> PCT/EP99/09660

<151> 1999-12-07

<150> US 60/111,255

<151> 1998-12-07

<150> US 09/206,601

<151> 1998-12-07

<160> 415

<170> FastSEQ for Windows Version 4.0

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<213> Homo sapiens

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His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg

20 25 30

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<220>

<223> Mutagen

<221> VARIANT

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

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1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg

20 25 30

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1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
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1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
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<223> Xaa = beta-Ala (beta-alanine)

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1 5 10 15
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<223> Xaa = N-epsilon-tetradecanoyl-lysine

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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
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<223> Xaa = N-epsilon-tetradecanoyl-lysine

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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
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<223> Xaa = N-epsilon-tetradecanoyl-lysine

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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
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Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
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N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

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<400> 11

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
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Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
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His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
				20				25				30			

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<223> Xaa = (1-tetradecylamino)asparagine

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 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

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Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
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<223> this sequence has an amidated c-terminus

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1 5 10 15
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His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Xaa Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg

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His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

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Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
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Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
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1 5 10 15
Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
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<223> Xaa = beta-alanine

<221> VARIANT
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<223> Xaa = N-epsilon-4-(2-aminoethyl)-1-carboxymethyl-piperazine-decanoyl-lysine

<221> VARIANT
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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
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<223> Xaa = Ado (12-aminododecanoic acid)

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Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa Xaa			
	20	25	30

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<223> Xaa = Ado (12-aminododecanoic acid)

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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Asp Xaa
20 25 30
Xaa

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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
20 25 30

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<223> Xaa = Aun (11-aminoundecanoic acid)

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1 5 10 15
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20 25 30

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1 5 10 15
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1 5 10 15
Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

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20 25 30

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<221> VARIANT

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<223> this sequence has an amidated c-terminus

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Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg

20

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<223> Xaa = beta-Ala (beta-alanine)

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His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Lys	Leu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
				20					25				30		

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<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

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<223> this sequence has an amidated c-terminus

<400> 37

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Lys	Lys	Xaa	Arg		
				20					25				30		

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<223> this sequence has an amidated c-terminus

<400> 38

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Lys	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Lys	Leu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
				20					25				30		

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<223> Xaa = D-Arg

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His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
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Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Xaa		
				20					25				30		

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1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa
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<222> 2, 21
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 41
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 42
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT

<222> 2, 21
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29, 31
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 42
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa Arg
20 25 30

<210> 43
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 21
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29, 31
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 43
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa Arg
20 25 30

Arg

<210> 44
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 44

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Lys	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Lys	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
						20			25					30	

<210> 45

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 45

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1					5					10				15	
Gln	Ala	Ala	Lys	Lys	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
						20			25					30	

<210> 46

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>
<223> this sequence has an amidated c-terminus

<400> 46
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Gly Arg
20 25 30

<210> 47

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 47

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 48

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = D-Arg

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 48

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1	5	10	15										
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg
				20				25				30	

<210> 49
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

1	5	10	15												
His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg	Arg	
				20				25				30			

<210> 50
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

1	5	10	15												
His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Phe	Leu	Val	Lys	Xaa	Arg		
				20				25				30			

<210> 51

<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 51
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Phe Leu Val Lys Xaa Arg
20 25 30

<210> 52
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 25
<223> Xaa = Nal (naphthylalanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 52
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Xaa Leu Val Lys Xaa Arg
20 25 30

<210> 53
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 22, 25

<223> Xaa = Nal (naphthylalanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 53

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Xaa Ile Ala Xaa Leu Val Lys Xaa Arg
20 25 30

<210> 54

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 25

<223> Xaa = Nal (naphthylalanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 54

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Xaa Leu Val Arg Xaa Arg
20 25 30

<210> 55

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 55
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Phe Leu Val Arg Xaa Arg
 20 25 30

<210> 56
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 13, 25
 <223> Xaa = Nal (naphthylalanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 56
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Xaa Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Xaa Leu Val Lys Xaa Arg
 20 25 30

<210> 57
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 6, 25
 <223> Xaa = Nal (naphthylalanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 57
 His Xaa Glu Gly Thr Xaa Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Xaa Leu Val Lys Xaa Arg

20

25

30

<210> 58

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-decanoyl-lysine

<400> 58

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		

Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Xaa	

20

25

30

<210> 59

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 59

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		

Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	

20

25

30

<210> 60

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-dodecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 60
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 61
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222> 31
<223> Xaa = O-decanoyl-serine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 61
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa
20 25 30

<210> 62
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

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<221> VARIANT
<222> 2, 21
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29, 31
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222> 33
<223> Xaa = N-epsilon-octanoyl-lysine

<400> 62
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
    1           5          10          15
Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa Arg
    20          25          30

Xaa

<210> 63
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222> 31
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 63
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
    1           5          10          15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
    20          25          30

<210> 64
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

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<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222> 31
<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 64
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
   1           5           10          15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
   20          25          30

<210> 65
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222> 31
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 65
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
   1           5           10          15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
   20          25          30

<210> 66
<211> 30
<212> PRT
<213> Artificial Sequence

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<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = A5C (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 66
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
20 25 30

<210> 67
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 1
<223> Xaa = Tma-His (N,N-tetramethylamidino-histidine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 67
Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
20 25 30

<210> 68
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 31
<223> Xaa = Aec (4-(2-aminoethyl)-1-carboxymethyl-piperazine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 68
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa
20 25 30

<210> 69
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222> 32
<223> Xaa = Aec (4-(2-aminoethyl)-1-carboxymethyl-piperazine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 69
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Gly Xaa
20 25 30

<210> 70
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 31, 32

<223> Xaa = Aec (4-(2-aminoethyl)-1-carboxymethyl-piperazine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 70

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa Xaa
20 25 30

<210> 71

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 71

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 72

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 72

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 73
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen
 <221> VARIANT
 <222> 1
 <223> Xaa = N-alpha-Me-His (N-methyl histidine)

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 73
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 74
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen
 <221> VARIANT
 <222> 1
 <223> Xaa = N-alpha-Me-His (N-methyl histidine)

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 74
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg

20

25

30

<210> 75
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N-alpha-Me-His (N-methyl histidine)

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 75
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 76
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N-alpha-Me-His (N-alfa-methyl histidine)

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 76
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 77
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 77
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 78
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 78
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 79
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = D-Ala

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 79
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 80
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 26
<223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 80
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
20 25 30

<210> 81
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT

<222> 2, 24, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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<223> this sequence has an amidated c-terminus

<400> 81
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Xaa Trp Leu Val Lys Xaa Arg
20 25 30

<210> 82
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 19, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 82
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Xaa Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 83
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 10, 14
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 83
His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Xaa Glu Gly

1	5	10	15										
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg
				20				25				30	

<210> 84
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 10, 23, 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 84
His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg
20 25 30

<210> 85
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 14, 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 85
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
20 25 30

<210> 86

<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 14
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 86
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 87
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 87
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Lys Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 88
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 14
<223> Xaa = A6C (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 88
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
1 5 10 15
Gln Xaa Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 89
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 23, 26
<223> Xaa = A6C (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 89
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg
20 25 30

<210> 90
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 18, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 23, 26
<223> Xaa = A6C (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 90

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly			
1	5	10	15
Gln Xaa Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg			
20	25	30	

<210> 91

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 6

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 91

His Xaa Glu Gly Thr Xaa Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly			
1	5	10	15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg			
20	25	30	

<210> 92

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 14

<223> Xaa = Cha (alpha-amino acid cyclohexylalanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 92
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 93
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 27
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 93
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Xaa Lys Xaa Arg
 20 25 30

<210> 94
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 10,14
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 94

His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 95
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 16
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 95
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Xaa
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 96
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 16, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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<223> this sequence has an amidated c-terminus

<400> 96
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Xaa
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 97
<211> 30
<212> PRT
<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 97

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Xaa Ala Lys Glu Phe Glu Ala Trp Xaa Val Lys Xaa Arg

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25

30

<210> 98

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 19, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 98

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Glu Xaa Xaa Lys Glu Phe Glu Ala Trp Xaa Val Lys Xaa Arg

20

25

30

<210> 99

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 19, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 10,14, 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 99
His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Xaa Glu Gly
1 5 10 15
Glu Xaa Xaa Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
20 25 30

<210> 100
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<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 100
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
20 25 30

<210> 101
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 101

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
				20					25				30		

<210> 102

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 102

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
				20					25				30		

<210> 103

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 24

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 103

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Ala Lys Glu Phe Ile Xaa Trp Leu Val Lys Xaa Arg

20

25

30

<210> 104

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 19

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 104

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Xaa Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg

20

25

30

<210> 105

<211> 30

<212> PRT

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<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 10, 23, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 105

His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Leu Glu Gly

1 5 10 15

Gln Ala Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg

20 25 30

<210> 106

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 14, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 106

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly

1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg

20 25 30

<210> 107

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<220>

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 14,
<223> Xaa = A6C (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 107
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 108
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 108
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Lys Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 109
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 18
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 14

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 109
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Gln Xaa Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 110

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 23, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 110
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

<210> 111

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

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<221> VARIANT

<222> 2, 18

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 23, 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 111
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Xaa Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg
20 25 30

<210> 112
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 6
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 112
His Xaa Glu Gly Thr Xaa Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 113
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 14
<223> Xaa = Cha (alfa-amino acid- cyclohexylalanine)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 113
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 114
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 27
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 114
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Xaa Lys Xaa Arg
20 25 30

<210> 115
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 16, 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 115
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Xaa
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 116
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 16
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 116
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Xaa
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 117
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 117
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Glu Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
20 25 30

<210> 118

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 118
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Glu Xaa Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
20 25 30

<210> 119

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
<222> 2, 18
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 28
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 119
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Glu Xaa Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
20 25 30

<210> 120
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 18, 19
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 120
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Glu Xaa Xaa Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
20 25 30

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<210> 121
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 18, 19
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 10, 14, 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 121
His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Xaa Glu Gly
 1           5           10          15
Glu Xaa Xaa Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
 20          25          30

<210> 122
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = D-Arg

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 122
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10          15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20          25          30

<210> 123

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<211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = D-Lys

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 123
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 124
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = D-Arg

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 124
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 125
 <211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = D-Lys

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 125

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Xaa		
			20				25				30				

<210> 126

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 126

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25				30				

<210> 127

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 127

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
				20					25				30		

<210> 128

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 128

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
				20					25				30		

<210> 129

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 129

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa

20

25

30

<210> 130

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 130

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Gly

20

25

30

<210> 131

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has a hydroxylated c-terminus

<400> 131
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa
20 25 30

<210> 132
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222> 31
<223> Xaa = D-Ala

<221> VARIANT
<222>
<223> this sequence has a hydroxylated c-terminus

<400> 132
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa
20 25 30

<210> 133
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2,29,31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 133

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
20 25 30

<210> 134

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 31

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 134

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
20 25 30

<210> 135

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2,29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 135

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
20 25 30

<210> 136

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222> 31

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 136

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Gly Xaa Xaa
20 25 30

<210> 137

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has a hydroxylated c-terminus

<400> 137
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Gly Xaa Xaa
20 25 30

<210> 138
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 31
<223> Xaa = Ado (12-aminododecanoic acid)

<221> VARIANT
<222>
<223> this sequence has a hydroxylated c-terminus

<400> 138
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
20 25 30

<210> 139
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 31
<223> Xaa = Ado (12-aminododecanoic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 139

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
 20 25 30

<210> 140

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222> 31

<223> Xaa = D- Ala

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 140

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Gly Xaa Xaa
 20 25 30

<210> 141

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 141

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1	5	10	15
Gln	Ala	Ala	Arg
		Glu	Phe
		Ile	Ala
		Trp	Leu
		Val	Arg
		Gly	Arg
		Xaa	Xaa
	20	25	30

<210> 142
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 31
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222> 32
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has a hydroxylated c-terminus

<400> 142
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Gly Arg Xaa Xaa
20 25 30

<210> 143
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 143
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 144
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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 <221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 144
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 145
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 145
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 146
 <211> 30

<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 146
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 147
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 147
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 148
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 148
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 149
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 149
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 150
 <211> 30
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 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 150
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 151
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 151
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 152
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 152
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 153
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 153
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Lys Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 154
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 154
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Lys Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 155
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 155
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Lys Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 156
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 156

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 157

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 157

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 158

<211> 30

<212> PRT

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<220>

<223> Mutagen

<221> VARIANT

<222> 2,29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

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<223> this sequence has an amidated c-terminus

<400> 158
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 159
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
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<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
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<223> this sequence has an amidated c-terminus

<400> 159
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 160
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 160

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly			
1	5	10	15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg			
20	25	30	

<210> 161
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
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<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
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<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 161			
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1	5	10	15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg			
20	25	30	

<210> 162
<211> 30
<212> PRT
<213> Artificial Sequence

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<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
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<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>

<223> this sequence has an amidated c-terminus

<400> 162

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly			
1	5	10	15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg			
20	25	30	

<210> 163

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

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<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 163

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly			
1	5	10	15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg			
20	25	30	

<210> 164

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

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<221> VARIANT

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 164
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 165
<211> 30
<212> PRT
<213> Artificial Sequence

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<221> VARIANT
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<221> VARIANT
<222> 28
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
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<223> this sequence has an amidated c-terminus

<400> 165
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 166
<211> 30
<212> PRT
<213> Artificial Sequence

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<222> 2, 29
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<221> VARIANT
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<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 166
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg

20

25

30

<210> 167
<211> 30
<212> PRT
<213> Artificial Sequence

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<221> VARIANT
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<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
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<400> 167
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 168
<211> 30
<212> PRT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
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<400> 168
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 169
<211> 30
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<213> Artificial Sequence

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<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 169

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
						20			25				30		

<210> 170

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

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<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 170

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
						20			25				30		

<210> 171

<211> 30

<212> PRT

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 171
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 172
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<222> 2, 29
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<221> VARIANT
<222> 28
<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
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<223> this sequence has an amidated c-terminus

<400> 172
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 173
<211> 30
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<220>
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<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 173

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
				20					25				30		

<210> 174

<211> 30

<212> PRT

<213> Artificial Sequence

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<221> VARIANT

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 174

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
				20					25				30		

<210> 175

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

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<222> 2, 29

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<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 175
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 176

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

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<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 176

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 177

<211> 30

<212> PRT

<213> Artificial Sequence

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<223> Mutagen

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

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<223> this sequence has an amidated c-terminus

<400> 177

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 178
 <211> 30
 <212> PRT
 <213> Artificial Sequence

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<221> VARIANT
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 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
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<400> 178
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 179
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<221> VARIANT
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 179
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 180
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<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 180
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
20 25 30

<210> 181
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
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<223> this sequence has an amidated c-terminus

<400> 181
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
20 25 30

<210> 182
<211> 30
<212> PRT
<213> Artificial Sequence

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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 182
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 183
 <211> 30
 <212> PRT
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<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 183
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 184
 <211> 30
 <212> PRT
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<221> CONFLICT
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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 184
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 185
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 185
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
20 25 30

<210> 186
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 186

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
				20					25				30		

<210> 187

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

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<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 187

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
				20					25				30		

<210> 188

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 188

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1	5	10	15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa			
20	25	30	

<210> 189
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
<222> 32
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 189	His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly		
1	5	10	15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa			
20	25	30	

<210> 190
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 190	His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly		
1	5	10	15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa			
20	25	30	

<210> 191

<211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 191
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 192
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 192
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 193
 <211> 32
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<220>

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<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

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<223> this sequence has an amidated c-terminus

<400> 193

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10			15			
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
				20				25			30				

<210> 194

<211> 32

<212> PRT

<213> Artificial Sequence

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<221> CONFLICT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

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<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 194

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10			15			
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
				20				25			30				

<210> 195

<211> 32

<212> PRT

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<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 195
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      5           10          15
    1
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    20           25          30

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    20           25          30

<210> 197
<211> 30
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<221> VARIANT
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1 5 10 15
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<210> 198
<211> 30
<212> PRT
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<221> VARIANT
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<400> 198
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1 5 10 15
Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
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<210> 199
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<400> 200

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1 5 10 15
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20 25 30

<210> 204

<211> 30
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20 25 30

<210> 205
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<212> PRT
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<400> 205
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25

30

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<210> 206
<211> 30
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<221> VARIANT
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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

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<221> VARIANT
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<221> VARIANT
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<400> 206
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Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
      20          25          30

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<211> 30
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20 25 30

<210> 208
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Glu Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
20 25 30

<210> 209
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10

15

Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg

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<400> 210

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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
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   20         25          30

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   20         25          30

<210> 215
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    20          25          30

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    20          25          30

<210> 217
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<212> PRT
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<221> VARIANT
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1 5 10 15
Gln Ala Lys Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
20 25 30

<210> 218
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<221> VARIANT
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1 5 10 15
Gln Ala Lys Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
20 25 30

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<210> 219
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<400> 219
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1 5 10 15
Gln Ala Lys Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
20 25 30

<210> 220
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<400> 220
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Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa			
20	25		30

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Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa			
20	25		30

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Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa			
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Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa			
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<211> 30

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Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
    20          25          30

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<221> VARIANT
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<400> 225
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    1           5           10          15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
    20          25          30

<210> 226
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<222> 30
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<400> 226
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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 227
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<221> VARIANT
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<400> 227
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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 228
<211> 30
<212> PRT
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<221> VARIANT
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<400> 228
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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 229
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<400> 229
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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 230
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1 5 10 15
Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 231
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<400> 231
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1 5 10 15
Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 232
<211> 30
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<221> VARIANT
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<221> VARIANT
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<400> 232
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1 5 10 15
Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 233
<211> 30
<212> PRT
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<221> VARIANT
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<221> VARIANT
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<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 233
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 234
<211> 30
<212> PRT
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<220>
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<221> VARIANT
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<221> VARIANT
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<221> VARIANT
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<400> 234
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
    1           5           10          15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
    20          25          30

<210> 235
<211> 30
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<221> VARIANT
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<221> VARIANT
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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 235
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
    1           5           10          15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
    20          25          30

<210> 236
<211> 30

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<212> PRT
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<221> VARIANT
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<221> VARIANT
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<221> VARIANT
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<400> 236
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 237
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<212> PRT
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<220>
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<221> VARIANT
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<221> VARIANT
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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

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<223> this sequence has an amidated c-terminus

<400> 237
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Xaa Val Arg Xaa Arg
20 25 30

<210> 238
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 <212> PRT
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<221> VARIANT
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 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 238
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 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Xaa Val Arg Xaa Arg
 20 25 30

<210> 239
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<221> VARIANT
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 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 239
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1	5	10	15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp	Xaa Val Arg Xaa Arg		
20	25		30

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<211> 30
<212> PRT
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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 28
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 240								
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly								
1	5	10	15					
Gln Ala Ala Lys Glu Phe Ile Ala Trp	Xaa Val Xaa Xaa Arg							
20	25		30					

<210> 241
<211> 30
<212> PRT
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<221> VARIANT
<222> 28
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 241
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 242
<211> 30
<212> PRT
<213> Artificial Sequence

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<221> VARIANT
<222> 28
<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 242
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 243
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 243

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1		5				10						15			
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
	20					25						30			

<210> 244

<211> 30

<212> PRT

<213> Artificial Sequence

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<221> VARIANT

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<223> Xaa = A6C (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 244

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1		5				10						15			
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
	20					25						30			

<210> 245

<211> 30

<212> PRT

<213> Artificial Sequence

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<223> Xaa = A6C (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 245
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 5 10 15
 1
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
 20 25 30

<210> 246
 <211> 30
 <212> PRT
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<221> VARIANT
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<221> VARIANT
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<400> 246
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 5 10 15
 1
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
 20 25 30

<210> 247
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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 247

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa

20 25 30

<210> 248

<211> 30

<212> PRT

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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 248

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1 5 10 15

Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa

20 25 30

<210> 249

<211> 30

<212> PRT

<213> Artificial Sequence

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<221> VARIANT
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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
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<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 249
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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
20 25 30

<210> 250
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<212> PRT
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<221> VARIANT
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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 30
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<221> VARIANT
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<400> 250
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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
20 25 30

<210> 251
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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 251
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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
20 25 30

<210> 252
<211> 30
<212> PRT
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<221> VARIANT
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<221> VARIANT
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<221> VARIANT
<222>
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<400> 252
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
20 25 30

<210> 253
<211> 30
<212> PRT
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<222> 30
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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 253
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
20 25 30

<210> 254
<211> 30
<212> PRT
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<223> Xaa = A6C (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 254
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1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
20 25 30

<210> 255
<211> 30

<212> PRT
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<220>
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<221> VARIANT
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<221> VARIANT
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<400> 255
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 5 10 15
 1
 Gln Xaa Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 256
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 <212> PRT
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<221> VARIANT
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 256
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 5 10 15
 1
 Gln Xaa Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 257
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<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 257

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Xaa Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg

20

25

30

<210> 258

<211> 30

<212> PRT

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<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 258

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg

20

25

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<210> 259

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<400> 259
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 260
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<400> 260
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 1 5 10 15
 Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 261
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<221> VARIANT

<222>
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<400> 261
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 262

<211> 30

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<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 262

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 263

<211> 30

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 263

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1	5	10	15
Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa			
20	25	30	

<210> 264
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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

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<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 264
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1 5 10 15
Glu Xaa Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
20 25 30

<210> 265
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
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<223> this sequence has an amidated c-terminus

<400> 265
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Glu Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 266
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 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 266
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 267
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<221> VARIANT
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<400> 267
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 268
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<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 268
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 269
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 28
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 269
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Glu Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
20 25 30

<210> 270
<211> 30
<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 270

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1	.	.		5					10				15		
Glu	Ala	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg	
					20				25				30		

<210> 271

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 271

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1	.	.	.	5	.	.	.	10	.	.	.	15	.	.	.
Glu	Ala	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg	
					20				25				30		

<210> 272

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 272
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Glu Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 273
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 273
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
20 25 30

<210> 274
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 274
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
20 25 30

<210> 275
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 275
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
20 25 30

<210> 276
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>

<223> this sequence has an amidated c-terminus

<400> 276

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly			
1	5	10	15
Glu Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa			
20	25	30	

<210> 277

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 277

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly			
1	5	10	15
Glu Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa			
20	25	30	

<210> 278

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 278

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly			
1	5	10	15

Glu Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 279
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 279
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Xaa Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 280
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 280
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Xaa Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 281
 <211> 30

<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 24, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 281
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Xaa Glu Phe Ile Xaa Trp Leu Val Arg Xaa Arg
20 25 30

<210> 282
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 24, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 282
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 283
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 24, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 283
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 284
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 24, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 284
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 285
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 24, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 285
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 286
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 24, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 286
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 287
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 24, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>
<223> this sequence has an amidated c-terminus

<400> 287
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 288
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 288
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Glu Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
20 25 30

<210> 289
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 289

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10				15			
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
							20		25			30			

<210> 290

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 290

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10				15			
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
							20		25			30			

<210> 291

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 291

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Glu Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
20 25 30

<210> 292

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 292

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Glu Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
20 25 30

<210> 293

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 293
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Glu Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
20 25 30

<210> 294
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 18, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 294
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Glu Xaa Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa
20 25 30

<210> 295
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6C (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 295

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Glu Xaa Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa

20

25

30

<210> 296

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6C (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 296

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Glu Xaa Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa

20

25

30

<210> 297

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 24, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 297

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Glu Xaa Ala Arg Glu Phe Ile Xaa Trp Xaa Val Arg Xaa Xaa

20

25

30

<210> 298

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 24, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 298

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Glu Xaa Ala Arg Glu Phe Ile Xaa Trp Xaa Val Arg Xaa Xaa

20

25

30

<210> 299

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 24, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = A6C (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 299

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Xaa	Trp	Xaa	Val	Arg	Xaa	Xaa		
									20		25		30		

<210> 300

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-HEPES-His
 (N-alpha-(4-(2-hydroxyethyl)-1-piperazine-ethanesu
 lfonic
 acid)-histidine

<221> VARIANT

<222> 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 300

Xaa	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
									20		25		30		

<210> 301
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 1
<223> Xaa = N alfa-HEPES-His
 (N-alpha- (4- (2-hydroxyethyl)-1-piperazine-ethanesu
 lfonic
 acid)-histidine

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 301
Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 302
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 1
<223> Xaa = N alfa-HEPES-His
 (N-alpha- (4- (2-hydroxyethyl)-1-piperazine-ethanesu
 lfonic
 acid)-histidine

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 302
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 303
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-HEPA-His
 (N-alpha-(4-(2-hydroxyethyl)-1-piperazineacetyl)-
 histidine

<221> VARIANT
 <222> 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 303
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 304
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-HEPA-His
 (N-alpha-(4-(2-hydroxyethyl)-1-piperazineacetyl)-
 histidine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 304
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 305
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = N alfa-HEPA-His
 (N-alpha-(4-(2-hydroxyethyl)-1-piperazineacetyl)-
 histidine

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 305
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 306
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
 <222> 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 306
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 307

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 307

Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 308

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 308

Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg

20

25

30

<210> 309
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
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<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 309
Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
20 25 30

<210> 310
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 1
<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
<222> 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 310
Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 311
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 311
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 312
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 312
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 313
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
<222> 1
<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 313
Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 314
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
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<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 314
Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 315
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 1
<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 315
Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 316
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
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<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 316
Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 317
<211> 30
<212> PRT
<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-octanesulfonyl- lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 317

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
				20					25				30		

<210> 318

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-dodecanesulfonyl- lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 318

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
				20					25				30		

<210> 319

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = N-epsilon-hexadecanesulfonyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 319
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 320
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa = N-epsilon-octanesulfonyl- lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 320
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 321
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa = N-epsilon-dodecanesulfonyl- lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 321

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly			
1	5	10	15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg			
20	25	30	

<210> 322

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-hexadecanesulfonyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 322

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly			
1	5	10	15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg			
20	25	30	

<210> 323

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanesulfonyl- lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 323

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 324
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-hexadecanesulfonyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 324
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 325
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = 1-(4-decyl-piperazine)- asparagine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 325
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

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<210> 326
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 326
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10          15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20          25          30

<210> 327
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 327
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10          15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20          25          30

<210> 328
<211> 30
<212> PRT
<213> Artificial Sequence

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<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 328
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 329
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 329
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 330
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 330
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 331
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 331
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 332
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 332
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 333
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 333
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 334
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 334

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
				20				25				30			

<210> 335

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 335

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
				20				25				30			

<210> 336

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 336

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa	Gly	Xaa
				20				25				30			

<210> 337
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 337
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Gly Xaa
20 25 30

<210> 338
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 338
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Gly Xaa
20 25 30

<210> 339
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 339
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Gly Xaa
20 25 30

<210> 340
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-(4-decyl-piperazine)- asparagine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 340
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa Xaa
20 25 30

<210> 341
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT

<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-(4-dodecyl-piperazine)-asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 341
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa Xaa
20 25 30

<210> 342
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 342
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa Xaa
20 25 30

<210> 343
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 343

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa Xaa
20 25 30

<210> 344

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2,29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 344

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 345

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 345
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 346
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 346
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 347
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<400> 347
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg

20

25

30

<210> 348
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 348
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 349
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 349
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 350
<211> 30
<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 350

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg

20

25

30

<210> 351

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 351

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg

20

25

30

<210> 352

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = 1-(4-decyl-piperazine)- asparagine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 352
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 353
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = 1-(4-dodecyl-piperazine)- asparagine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 353
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 354
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30
 <223> Xaa =
 1-(4-tetradecyl-piperazine)-acetyl)asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 354
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 355
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220> .
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 355
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 356
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> CONFLICT

<222>

<223> this sequence has an amidated c-terminus

<400> 356

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly			
1	5	10	15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa			
20	25	30	

<210> 357

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<400> 357

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly			
1	5	10	15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa			
20	25	30	

<210> 358

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 358

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1	5	10	15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa			
20	25	30	

<210> 359
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

1	5	10	15
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly			
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa			
20	25	30	

<210> 360
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

1	5	10	15
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly			
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa			
20	25	30	

<210> 361

<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 361
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
20 25 30

<210> 362
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 362
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
20 25 30

<210> 363
<211> 32
<212> PRT
<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 363

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10			15			
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
						20			25			30			

<210> 364

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = 1-dodecylamino-glutamine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 364

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10			15			
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
						20			25			30			

<210> 365

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa = 1-dodecylamino-glutamine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 365
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 366
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa = 1-dodecylamino-glutamine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 366
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 367
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa = 1-dodecylamino-glutamine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 367

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly				
1	5	10	15	
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa				
20	25	30		

<210> 368

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =
N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 368

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly				
1	5	10	15	
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg				
20	25	30		

<210> 369

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =
N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysi
ne

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 369

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10			15			
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
						20			25			30			

<210> 370

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =

N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 370

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10			15			
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
						20			25			30			

<210> 371

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =

N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 371
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 372
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa =
 N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 372
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 373
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa =
 N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 373

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly			
1	5	10	15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg			
20	25	30	

<210> 374

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa =
N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 374

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly			
1	5	10	15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg			
20	25	30	

<210> 375

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa =
N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 375

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1	5	10	15	
Gln	Ala	Ala	Arg	
			Glu	
			Phe	
		Ile	Ala	
			Trp	
			Leu	
			Val	
		Xaa	Xaa	
			Arg	
		20	25	30

<210> 376
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa =
N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 376
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 377
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa =
N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 377
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa

20

25

30

<210> 378
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa =
 N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 378
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 379
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =
 N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 379
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 380
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa =
N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 380
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
20 25 30

<210> 381
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa =
N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 381
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
20 25 30

<210> 382

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<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa =
    N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 382
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
   1           5           10          15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
   20          25          30

<210> 383
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa =
    N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 383
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
   1           5           10          15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
   20          25          30

<210> 384
<211> 32
<212> PRT

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<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =
N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 384

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10			15			

Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
									25			30			

<210> 385

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =
N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 385

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10			15			

Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
									25			30			

<210> 386

<211> 32

<212> PRT

<213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =
 N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 386
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 387
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa =
 N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 387
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 388
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =

N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 388

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg

20

25

30

<210> 389

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =

N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 389

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg

20

25

30

<210> 390

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

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<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa =
      N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 390
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
    1           5           10          15
Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
    20          25          30

<210> 391
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa =
      N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 391
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
    1           5           10          15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
    20          25          30

<210> 392
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT

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<222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 28
 <223> Xaa =
 N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysi
 ne

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 392
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

 <210> 393
 <211> 30
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Mutagen

 <221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 28
 <223> Xaa =
 N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 393
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

 <210> 394
 <211> 30
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Mutagen

 <221> VARIANT
 <222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa =
N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 394
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
20 25 30

<210> 395
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa =
N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 395
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 396
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT
<222> 30
<223> Xaa =
      N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 396
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
   1           5           10          15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
   20          25          30

<210> 397
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa =
      N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 397
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
   1           5           10          15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
   20          25          30

<210> 398
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

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<222> 30
<223> Xaa =
      N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 398
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
    1           5           10          15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
    20          25          30

<210> 399
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa =
      N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 399
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
    1           5           10          15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
    20          25          30

<210> 400
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa =

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N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 400

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10			15			
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
						20			25			30			

<210> 401

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 401

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10			15			
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
						20			25			30			

<210> 402

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

sine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 402
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
20 25 30

<210> 403
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa =
N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 403
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
20 25 30

<210> 404
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa =
N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysi
ne

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 404

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa

20

25

30

<210> 405

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 405

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa

20

25

30

<210> 406

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>
<223> this sequence has an amidated c-terminus

<406> 406
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
20 25 30

<210> 407
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an hydroxydated c-terminus

<407> 407
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
20 25 30

<210> 408
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an hydroxydated c-terminus

<408> 408
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1	5	10	15
Gln	Ala	Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa	
20		25	30

<210> 409
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 31
<223> Xaa = Ava (5-aminovaleric acid)

<221> VARIANT
<222> 32
<223> Xaa = Ado (12-aminododecanoic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 409														
His	Xaa	Glu	Gly	Thr	Phe	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1		5			10				15					
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa
20				25						30				

<210> 410
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222> 31
<223> Xaa = N-epsilon-dodecanoyl-lysine

<221> VARIANT
<222>

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<400> 410
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
    1           5           10          15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
    20          25          30

<210> 411
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 1
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 411
Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln
    1           5           10          15
Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
    20          25          30

<210> 412
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 1
<223> Xaa = L-His, Ura, Paa, Pta, Amp, Tma-His,
      Des-amino-His, or deleted

<221> VARIANT
<222> 2
<223> Xaa = Ala, D-Ala, Aib, Acc, N-Me-Ala, N-Me-D-Ala,
      or N-Me-Gly

<221> VARIANT
<222> 3
<223> Xaa = Glu, N-Me-Glu, N-Me-Asp, or Asp

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<221> VARIANT
<222> 4
<223> Xaa = Gly, Acc, beta-Ala, or Aib

<221> VARIANT
<222> 5
<223> Xaa = Thr, or Ser

<221> VARIANT
<222> 6
<223> Xaa = Phe, Acc, Aic, Aib, 3-Pal, 4- Pal, beta-Nal, Cha, Trp, or X1-Phe

<221> VARIANT
<222> 7
<223> Xaa = Thr, or Ser

<221> VARIANT
<222> 8
<223> Xaa = Ser, or Aib

<221> VARIANT
<222> 9
<223> Xaa = Asp, or Glu

<221> VARIANT
<222> 10
<223> Xaa = Val, Acc, Aib, Leu, Ile, Tle, Nle, Abu, Ala, or Cha

<221> VARIANT
<222> 11
<223> Xaa = Ser, or Thr

<221> VARIANT
<222> 12
<223> Xaa = Ser, or Thr

<221> VARIANT
<222> 13
<223> Xaa = Tyr, Cha, Phe, 3-Pal, 4-Pal, Acc, beta-Nal, or X1-Phe

<221> VARIANT
<222> 14
<223> Xaa = Leu, Acc, Aib, Nle, Ile, Cha, Tle, Val, Phe, or X1-Phe

<221> VARIANT
<222> 15
<223> Xaa = Glu, or Asp

<221> VARIANT
<222> 16
<223> Xaa = Gly, Acc, beta-Ala, Glu, or Aib

<221> VARIANT
<222> 17
<223> Xaa = Gln, Asp, Asn, or Glu

<221> VARIANT

<222> 18

<223> Xaa = Ala, Aib, Val, Abu, Tle, or Acc

<221> VARIANT

<222> 19

<223> Xaa = Ala, Aib, Val, Abu, Tle, Acc, Lys, Arg, hArg, Orn, HN-CH((CH₂)_n-N(R₁₀-R₁₁))-C(O), OR NH-CH((CH₂)_e-X₃)-C(O)

<221> VARIANT

<222> 20

<223> Xaa = Lys, Arg, hArg, Orn, HN-CH((CH₂)_n-N(R₁₀-R₁₁))-C(O), OR NH-CH((CH₂)-X₃)-C(O)

<221> VARIANT

<222> 21

<223> Xaa = Glu Asp, Leu, Aib, or Lys

<221> VARIANT

<222> 22

<223> Xaa = Phe, Pal, beta-Nal, Xl-Phe, Aic, Acc, Aib, Cha, or Trp

<221> VARIANT

<222> 23

<223> Xaa = Ile, Acc, Aib, Leu, Nle, Cha, Tle, Val, Abu, Ala, or Phe

<221> VARIANT

<222> 24

<223> Xaa = Ala, Aib, or Acc

<221> VARIANT

<222> 25

<223> Xaa = Trp, beta-Nal, 3-Pal, 4-Pal, Phe, Acc, Aib, or Cha

<221> VARIANT

<222> 26

<223> Xaa = Leu, Acc, Aib, Nle, Ile, Cha, Tle, Phe, Xl-Phe, or Ala

<221> VARIANT

<222> 27

<223> Xaa = Val, Acc, Aib, Leu, Ile, Tle, Nle, Cha, Ala, Phe, Abu, Lys, or Xl-Phe

<221> VARIANT

<222> 28

<223> Xaa = Lys, Arg, hArg, Orn, HN-CH((CH₂)_n-N(R₁₀-R₁₁))-C(O), or NH-CH((CH₂)_e-X₃)-C(O)

<221> VARIANT

<222> 29

<223> Xaa = Gly, beta-Ala, D-Ala, Gaba, Ava, NH-(CH₂)_m-C(O), Aib, Acc or D-amino acid

<221> VARIANT

<222> 30

<223> Xaa = L-or D-Arg, D-or L-Lys, D-or L-hArg, D-or L-Orn, HN-CH((CH₂)_n-N(R₁₀-R₁₁))-C(O), NH-CH((CH₂)_e-X₃)-C(O) or deleted

<221> VARIANT

<222> 31

<223> Xaa = Gly, beta-Ala, Gaba, Ava, Aib, Acc, Ado, Arg, Asp, Aun, Aec, NH-(CH₂)_m-C(O), HN-CH((CH₂)_n-N(R₁₀-R₁₁))-C(O), a D-amino acid, or deleted

<221> VARIANT

<222> 32

<223> Xaa = D-or L-Lys, D-or L-Arg, D-or L-hArg, D-or L-Orn, HN-CH((CH₂)_n-N(R₁₀-R₁₁))-C(O), NH-CH((CH₂)_e-X₃)-C(O)Ava, Ado, Aec, or deleted

<221> VARIANT

<222> 33

<223> Xaa = D-or L-Lys, D-or L-Arg, HN-CH((CH₂)_n-N(R₁₀-R₁₁))-C(O), Ava, Ado, or Aec

<400> 412

Xaa												
1												15
Xaa												
20												30

Xaa

<210> 413

<211> 31

<212> PRT

<213> Homo sapiens

<400> 413

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1													15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly	
20													30		

<210> 414

<211> 32

<212> PRT

<213> Homo sapiens

<400> 414

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1													15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly	Arg
20													30		

<210> 415

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 13

<223> Xaa = ¹²⁵I radiolabeled Tyr

<400> 415
His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Xaa Leu Glu Gly
5 10 15
1 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
20 25 30